

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International publication date

28 April 2005 (28.04.2005)

(10) International publication number

PCT

WO 2005/039242 A1

(51) International patent classification⁷:

H05B 3/50

(72) Inventors; and

(75) Inventors/Applicants (*US only*): BRUN, Michel [FR/FR]; 1, route de Balgau, F-68740 Rustenhard (FR). SCHMITTHEISLER, Christophe [FR/FR]; 16, rue Schafraint, F-67680 Epfis (FR). MISS, Pascal [FR/FR]; 3, rue des Iris, F-67600 Selestat (FR). MUNDEL, Maxime [FR/FR]; 9, rue du Centre, 68250 Pfaffenheim (FR). MOUGEY, Mathieu [FR/FR]; 2, rue du Ballon, F-68190 Ensisheim (FR).

(21) International application number:

PCT/EP2004/010328

(22) International filing date: 15 September 2004 (15.09.2004)

(25) Language of filing:

German

(26) Language of publication:

German

(30) Data relating to the priority:

03292474.8 7 October 2003 (07.10.2003)

EP

(81) Designated states (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,

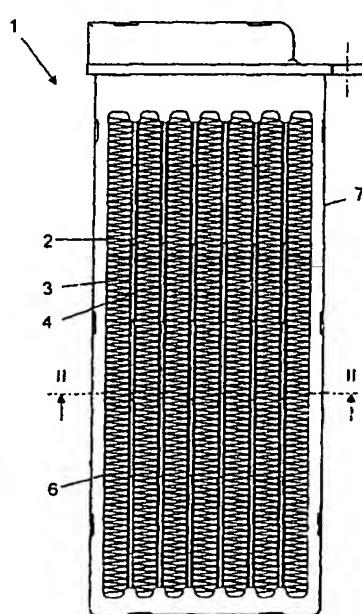
(71) Applicant (*for all designated States except US*): BEHR FRANCE S.A.R.L. [FR/FR]; 5, avenue de la Gare, F-68250 Rouffach (FR).

[continued on next page]

As printed

(54) Title: HEATING ASSEMBLY COMPRISING A PTC ELEMENT, IN PARTICULAR FOR A MOTOR VEHICLE

(54) Bezeichnung: HEIZUNGSANORDNUNG MIT PTC-ELEMENT, INSBESONDERE FÜR EIN KRAFTFAHRZEUG



(57) Abstract: The invention relates to a heating assembly comprising at least one PTC element, in particular for a motor vehicle. According to the invention, the PTC element (2) is positioned between metal sheets (3, 4), which are used to make electrical contact, said sheets (3, 4) and the PTC element (2) are bonded by means of an adhesive (5) and the adhesive (5) has a minimum specific electrical resistance of 50 ohms x cm and a maximum specific electrical resistance of 500 ohms x cm. In addition, solder can be used as an alternative to the adhesive (5).

(57) Zusammenfassung: Die Erfindung betrifft eine Heizungsanordnung mit mindestens einem PTC-Element, insbesondere für ein Kraftfahrzeug, wobei das PTC-Element (2) zwischen Kontaktblechen (3, 4) angeordnet ist die der elektrischen Anbindung dienen, wobei die Kontaktbleche (3, 4) und das PTC-Element (2) mittels eines Klebstoffes (5) verbunden sind, wobei der Klebstoff (5) einen spezifischen elektrischen Widerstand von minimal 50 Ohm x cm und maximal 500 Ohm x aufweist. Alternativ kann anstelle des Klebstoffs (5) auch ein Lot verwendet werden.

WO 2005/039242 A1

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,
MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU,
SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT,
TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) **Designated states (unless otherwise indicated, for every kind of regional protection available):** ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

- *of inventorship (Rule 4.17(iv)) for the following designation US*

Published:

- *With International Search Report*

For an explanation of the two-letter codes and the other abbreviations, reference is made to the explanations ("Guidance Notes on Codes and Abbreviations") at the beginning of each regular edition of the PCT Gazette.